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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,736	02/19/2004	Yoshiharu Doi	65933-070	3298

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600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/780,736

Applicant(s)

DOI, YOSHIHARU

Examiner

Joy K. Contee

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-12, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 4-7, 13-17, 20-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-3,8-12,18,19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-3,8-12,18,19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hind et al. (Hind), U.S. Patent No. 2004/0203908, in view of Jackson et al. (Jackson), US Patent No. 6,061,025.

Regarding claim 1, Hind discloses a radio apparatus characterized in that directional patterns of antennas are varied so as to transmit signals to a terminal apparatus which is a targeted communication party, in order to prevent a virtually intercepting terminal apparatus, which is an unintended communication party, from continuously receiving the signals (pages 2-4 [0028-0047] and see Fig. 5).

Hind fails to explicitly disclose changing the direction in which the virtual terminal apparatus exists.

In a similar field of endeavor, Jackson discloses changing the direction in which the virtual terminal apparatus exists (see col. 8, lines 37 to col. 9, line 50 and see Figs. 1 –3).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Hind to include a tunable microstrip antenna for antenna selectivity.

Regarding claims 2-3 and 11-12, 18 and 19, Hind discloses a radio apparatus, including: a computing unit which computes a received response vector of a terminal apparatus which is a targeted communication party, based on signals received from the targeted terminal apparatus; an acquiring unit which acquires a virtual response vector of a virtual terminal apparatus different from the targeted terminal apparatus; a generator which generates a transmission weight vector based on the received response vector computed by said computing unit and the virtual response vector acquired by said acquiring unit; and a transmitter which transmits a predetermined signal to the targeted terminal apparatus based on the transmission weight vector generated by said generator, wherein said acquiring unit acquires again, as appropriate, a virtual response vectors and the thus reacquired virtual response vector is again subject to the processings by said generator and said transmitter (pages 2-4 [0028-0047] and see Fig. 5).

Regarding claim 8, Hind discloses a transmission method characterized in that signals are transmitted to a terminal apparatus, which is a targeted communication party, by varying a directional pattern of an antenna so that a

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potentially or virtually intercepting terminal apparatus different from the targeted terminal apparatus cannot receive continuously the signals (pages 2-4 [0028-0047] and see Fig. 5).

Regarding claim 9, Hind discloses a transmission method which performs a control such that a value of the intensity of a signal received by a terminal apparatus, which is a targeted communication party, is maintained at a predetermined value, and varied as appropriate is a direction in which a value of signal strength for a terminal apparatus which is other than the targeted terminal apparatus (pages 2-4 [0028-0047] and see Fig. 5).

Regarding claim 10, Hind discloses a transmission method which generates a transmission weight vector used in transmitting a predetermined signal to a terminal apparatus, which is a targeted communication party, from a received response vector of the targeted terminal apparatus and a virtual response vector of a potentially or virtually intercepting terminal apparatus, and which performs a control in such a manner that the virtual response vector is changed, as appropriate, to a virtual response vector having a different value from the virtual response vector (pages 2-4 [0028-0047] and see Fig. 5).

Allowable Subject Matter

4. Claims 4-7,13-17,20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K. Contee whose telephone number is 571.272.7906. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571.272.7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JC


JOY K. CONTEE
PATENT EXAMINER